



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,542	08/25/2003	Franz Zahradnik	TER-001115	3118

24131 7590 01/30/2007
LERNER GREENBERG STEMER LLP
P O BOX 2480
HOLLYWOOD, FL 33022-2480

EXAMINER

TALBOT, BRIAN K

ART UNIT	PAPER NUMBER
----------	--------------

1762

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/647,542

Applicant(s)

ZAHRADNIK ET AL.

Examiner

Brian K. Talbot

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 9-27 is/are pending in the application.
- 4a) Of the above claim(s) 3,4,10,12-24,26 and 27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,9,11 and 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12/26/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Art Unit: 1762

1. The amendment filed 11/14/06 has been considered and entered. Claims 7,8 and 28 have been canceled. Claims 1-6 and 9-27 remain in the application.

2. This application contains claims 3,4,10,12-24,26 and 27 drawn to an invention nonelected with traverse in paper filed 6/1/06. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

3. In light of the amendment filed 11/14/06, the objection to the specification and the 35 USC 112 second paragraph rejections have been withdrawn.

4. In light of the amendment filed 11/14/06, the rejection involving Cado (3,042,591) has been withdrawn.

Claim Rejections - 35 USC § 103

5. Claims 1,2,5,6,9,11 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wojewnik (2002/0139472), WO-99/50099 or Davis Jr. et al. (6,161,889) in combination with Curran (3,330,695).

Wojewnik (2002/0139472) teaches a method of forming an electrical circuit on a substrate includes placing a masking film against the surface of the substrate, removing portion of the masking film and applying an electrically conductive material onto the exposed portions of

the surface of the substrate (abstract). The substrate is a door trim panel having the electrical components ([0004]). Binding agent and electrically conductive material are integrally deposited and adhered to the substrate ([0005]-[0006]). The electrically conductive material is formed by spraying molten or powdered metal [0006], thermal spraying, plasma spraying or kinetic deposition [0042]-[0043]. The masking film may have an adhesive backing to improve the adhesion to the substrate, heating the masking material and removing the masking material to form the circuitry design for the subsequent electrically conductive material [0014]-[0042]. The substrate can alternatively be charged and the metallic powder spray can be oppositely charged to form the circuitry [0043].

WO-99/50099 teaches a method of forming an electrical circuit on a substrate includes placing a template against the surface of the substrate, applying an electrically conductive material onto the exposed portions of the surface of the substrate and removing the template. The electrically conductive material can be applied by thermal spraying (abstract, col. 3, lines 3-10, col. 8, line 12 – col. 10, line 12). Other plating means can also be used such as utilizing a slurry and molten metal paste. The substrate is a door trim panel having the electrical components (pg. 1, lines 8-13).

Davis Jr. et al. (6,161,889) teaches a ribbed trim panel for thermal spraying of electrical circuit. A trim panel includes a plurality of ribs projecting from a surface of the trip panel. Fluent conductive material is sprayed onto the ribs at an angle such that distinct electrical traces are formed on the ribs (abstract). The ribs allow the formation of the electrical traces to be formed without the need for a template (col. 1, lines 55-65). The ribs can be are formed by a

Art Unit: 1762

variety of methods including molding, etching, embossing, etc. The electrical traces are formed by flame spraying (col. 2, lines 63-67).

Wojewnik (2002/0139472), WO-99/50099 or Davis Jr. et al. (6,161,889) all fail to teach forming a “germination” layer after treating the substrate and prior to flame spraying.

Curran (3,330,695) teaches a method of making electric circuit structures. Curran (3,330,695) teaches applying an organic plastic layer which acts as an adhesive, applying a hard particle coating to the organic plastic layer by dipping in a fluidized bed of particles, i.e. the germination layer, and metal coating the hard particle coating to form the circuit (col. 2, line 20 – col. 6, line 20).

Therefore it would have been obvious for one skilled in the art to have modified Wojewnik (2002/0139472), WO-99/50099 or Davis Jr. et al. (6,161,889) electrical conductor process by incorporating a “catalyst” layer as evidenced by Curran (3,330,695) with the expectation of forming a more precise conductor trace with improved bonding.

Response to Amendment

6. Applicant's arguments filed 11/14/06 have been fully considered but they are moot in view of the newly applied rejection.

Applicant argued that the instant invention does not use a mask.

Applicant's arguments are not commensurate in scope with the instant claims. The claims are not limited as argued by Applicant. The claims do not recite that a mask is not used

Art Unit: 1762

or recite language where the use of a mask would be prohibited. The claims recite a method comprising which is open-ended and can include other essential elements including the foresaid mask.

Applicant argued that the rejection of record failed to teach applying powder to the adhesion layer to form the germination layer prior to applying the metal coating by thermal spraying.

Curran (3,330,695) teaches this limitation as detailed above.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian K. Talbot whose telephone number is (571) 272-1428. The examiner can normally be reached on Monday-Friday 6AM-3PM.

Art Unit: 1762

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy H. Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Brian K Talbot 1/23/07

Brian K Talbot
Primary Examiner
Art Unit 1762

BKT